

DESCRIPTIONS OF THREE NEW SCANDINAVIAN
 THYSANOPTERA (TUBULIFERA).

BY RICHARD S. BAGNALL, F.L.S.

In June, 1909, I had occasion to journey to Norway on certain business matters, and returning by Sweden and Denmark I was able to do a little collecting in each of these countries, devoting my attention chiefly to the *Thysanoptera* and a section of the *Collembola*. In these groups I was fortunate enough to discover several new species, of which three, belonging to the *Tubulifera*, are here described.

I was greatly impressed by the large variety of thrips that were to be seen in the greatest profusion on the hills and in the beautiful forests and fields of southern Norway, and believe that many species yet remain to be discovered in that country, whilst a number of those described by Reuter from Finland will undoubtedly be met with.

SUB-ORDER TUBULIFERA.

CRYPTOTHRIPS MAJOR, *sp. nov.*

♀. Length, 3·4 mm.

Blackish-brown, segmentation of abdomen lighter, third antennal joint yellow tinged with light brown towards apex.

Closely related to *C. latus*, Uzel, and *C. nigripes*, Reut. Head with cheeks straight, widening from eyes to base, where it is widest; space between eyes equal to twice the breadth of an eye; ocelli small, posterior pair very widely separated and placed above a line drawn through posterior third of eyes and close to their inner margins. Antennæ more than one and a half times as long as the head; relative length of joints, 5: 7: 11: 10: 10: 8·5: 5·5: 5.

Prothorax transverse, only slightly more than one-half as long as the head and more than twice as broad as long. Spine at anterior angle moderately long, and pair at posterior angles very long (one-half the length of prothorax), and slightly curved. A minute seta on each side of the median line near posterior margin.

Pterothorax transverse; wings absent. Legs as in *C. latus*, tarsi only slightly lighter in colour than the tibiæ. Abdomen oblong-ovate, one and one half times as broad as prothorax, sides subparallel to the sixth segment and thence gradually converging to base of tube. Tube two-thirds the length of head, sides straight, converging from base to tip; twice as broad at base as at tip and two and three-quarters as long as broad at base. Terminal hairs and those at apex of ninth segment two-thirds the length of tube; other abdominal hairs short, moderately strong and light coloured.

Habitat: NORWAY, a single example taken by beating the leaves of a lime tree. Bygdo, near Christiania, June 27th, 1909.

From *C. nigripes* this species may be separated by its larger size, its shorter and broader head (twice as long as broad in *C. nigripes*) and relatively longer antennæ. *C. major* also closely approaches

C. latus, but it is much larger, has the abdomen distinctly oblong-ovate (instead of broadly oviform), and possesses much shorter abdominal bristles.

From the Nearctic form *C. rectangularis*, Hood, the present species differs in having a longer bristle at each anterior angle of the prothorax, and in the apparent absence of the posterior marginal pair.

GENUS HINDSIANA, Karny, 1910.

Hindsiana flavicincta, an *Anthothrips*-like form, has recently been described by Karny from Austria as the type of a new genus. I had had the same form in my possession (from Hungary) and set aside for description for some time, and recently recording it I then accepted Karny's genus with some hesitation.* Whilst very distinct from *H. flavicincta* the following species possesses certain features which serve to show its affinities with that insect, and I would point out an important character common to both of them—namely, the forms and positions of the abdominal bristles. In some recent memoirs I have suggested that taxonomically the chaetotaxy is of considerable importance in the study of the *Thysanoptera*, and I fully believe that this will be amply proved by further research.

HINDSIANA MELALEUCA, *sp. nov.*

♀. Length, 1.6 mm.; breadth of mesothorax 0.22 mm. Exceptionally long and narrow, being seven times as long as its breadth across the middle of the abdomen.

Colour light lemon-yellow, almost white, head and prothorax uniform dark brown, pterothorax a lighter shade of brown and yellowish towards the base of abdomen; tube same colour as the head, darkest across basal-third and at sides; ninth abdominal segment light brown shaded to yellowish towards base. Antennæ with the first joint of a rather deeper yellow, and the seventh and eighth joints brown. Fore-coxæ brown and fore-femur basally brown, but shaded distally to yellow; intermediate coxæ light yellowish-brown.

Head one and one-quarter times as long as broad through centre, cheeks very slightly and gently widened behind eyes and thence parallel to base; eyes small, occupying laterally a little more than one-fifth the total length of head, interocular space twice the breadth of one of them; ocelli small, the space between hind pair about three times the diameter of one of them; front ocellus overhanging, posterior pair above a line drawn across centre of eyes and near their inner margins; postocular bristles knobbed, erect, and placed well back and rather near lateral margins. Mouth-cone only reaching one-third of the distance across prosternum, broadly rounded at tip, and two-fifths as long as broad at base. Maxillary palpi long and stout, with an exceptionally long sense-bristle and a short one at tip. Antennæ one and two-thirds as long as

* Bagnall, *Ann. Mus. Nat. Hung.*, 1910.

head; relative lengths of joints 8: 14: 14: 16: 14: 12: 14: 8.5; second joint constricted at base and truncate at apex, three-fifths as broad as long; third obconical, fourth and fifth broadly claviform, sixth oviform and constricted near base, seventh elongated, more than twice as long as broad and truncate at apex, the apical joint narrowed to tip; joints 2—4 equally broad and 6 and 7 two-thirds as broad as either of them. A pair of light-coloured and indistinct sense-cones on each of the segments 3—6.

Prothorax three-quarters the length of head, and one and two-fifths as broad across hind angles as long, or one and three-quarters as wide across fore-coxæ as long; fore-margin narrowly emarginate, hind margin arcuate. Bristles at posterior and anterior angles and the mid-lateral pair present, erect and knobbed, others apparently obsolete; the pair at posterior angles the longest, being about one-third as long as the prothorax and half as long again as the fore-coxal spine, which is similarly knobbed. Pterothorax about as broad as the prothorax, narrower than width across the fore-coxæ, longer than broad, the metathorax being exceptionally long. Wings reaching to about the fifth abdominal segment, fore-wing apparently constricted near middle, cilia long and widely separated; median vein absent. Legs stout, fore-femur long and less than one-half as broad as long; all the tarsi dark brown on the chitinous part of the second segment on the inner side; fore-tarsal tooth apparently absent. Two exceptionally long and slender bristles at apical third of intermediate tibia and a similar bristle on hind tibia, which has a short spine at apex without.

Abdomen occupying two-thirds the total length of the insect; very gently and slightly widened to fifth segment and narrowing from seventh to base of tube. Tube slightly more than one-half as long as head, twice as long as broad at base and one-half as wide at tip as at base; terminal bristles exceptionally long, tapering and colourless towards tips, almost twice as long as the tube; those at apex of ninth abdominal segment similar to, and as long as, the terminal ones. Bristles on eighth segment knobbed, lateral bristle of seventh segment rather long and tapering, and apparently not knobbed, all other abdominal hairs shorter, straight and knobbed.

Habitat: DENMARK, a single example taken on a cruciferous flower in the Palm House of the Botanical Gardens, Copenhagen, June 30th, 1909.

PHLEOTHRIPS BREVICOLLIS, *sp. nov.*

♀. Length, 2.5 mm.; breadth of mesothorax 0.48 mm.

Like *Phleothrips coriaceus*; differing in having the third antennal joint much shorter, subequal in length to the fourth and having the distal half shaded with brown, whilst all the antennal joints are relatively shorter and broader.

The head is one-fifth longer than broad and has the cheeks set with fewer and much more minute spine-set warts, whilst the surface of the head is less strongly coriaceous, and the fore-femora are almost smooth. The mouth-cone is rather pointed and reaches to the base of the prosternum.

The fore-tibia is shaded with brown, darkest at the outer edge, and is clear

yellow at apex; the intermediate and hind-tibiæ are yellow at knees, but only slightly tinged with yellowish-brown at apices; and the rows of short, stout spines so conspicuous in the hind-tibiæ of *P. coriaceus* are apparently obsolete in this species. The wings are broad and lightly shaded with brown to the apical third.

The prothorax is strongly transverse, only two-thirds as long as the head and one-half as long as broad; the bristles are short and knobbed, the pair at posterior angles being the longest; and the spines on the fore-coxæ are short and stout. The tube is five-sixths as long as the head and about three and one-half times as long as broad at basal third, thus being slightly shorter and stouter than in *P. coriaceus*. The rather long lateral abdominal bristles seen in *P. coriaceus* are replaced by quite short ones in the present species.

Habitat: NORWAY, one female taken by beating lime trees at Bygdo, near Christiania, June 27th, 1909, together with *Dendrothrips tilix*, Uzel, numerous examples of an apparently new species of *Æolothrips* and larvæ, *Cephalothrips monilicornis* (Reut.), and *Cryptothrips major*, sp. n.

Easily recognised by the form of antennæ, smoother cheeks, the shorter and more transverse prothorax, with shorter and more noticeably clubbed setæ, and the shorter abdominal bristles, which are also differently arranged.

Penshaw Lodge,

Penshaw, Co. Durham:

November 7th, 1910.

ON THE OCCURRENCE IN NORTH AMERICA OF THE EUROPEAN *ERISTALIS ÆSTRACEUS*, L.

BY ERNEST E. AUSTEN.

More than sixty years ago, under the name *Syrphus æstriformis*, the species mentioned in the title of this note was re-described by Walker* from a single female collected by Mr. Barnston at Martin's Falls, Albany River, Ontario, Canada, about the year 1843. Since then the insect appears never to have been met with again in North America, and its true designation has remained entirely unsuspected. Osten Sacken, who examined Walker's type in the British Museum, pointed out that it is "a rather peculiar *Eristalis*,"† and Williston,‡ in his "Synopsis," merely reproduced Walker's original description and Osten Sacken's note without further comment.

* F. Walker, List of the Specimens of Dipterous Insects in the Collection of the British Museum. Part III, p. 573 (1849).

† C. R. Osten Sacken, Catalogue of the described Diptera of North America, p. 249, note 227 (1878).

‡ S. W. Williston, Synopsis of the North American Syrphidae (Bulletin of the United States National Museum, No. 31), pp. 176, 177 (1886).